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AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Previously Presented) A method for producing an RNA-loaded antigen presenting cell (APC) that presents on its surface a tumor antigenic epitope encoded by RNA of a tumor, wherein the epitope induces T cell proliferation, said method comprising:

introducing into an antigen-presenting cell *in vitro* RNA of a tumor comprising tumor-specific RNA that encodes an antigen that induces T cell proliferation and tumor immunity, thereby producing an RNA-loaded APC that presents on its surface a tumor antigenic epitope encoded by the RNA of the tumor, wherein the epitope induces T cell proliferation.

2. (Original) The method of claim 1, wherein said APC is a dendritic cell.
3. (Original) The method of claim 1, wherein said APC is a macrophage.
4. (Original) The method of claim 1, wherein said APC is an endothelial cell.
5. (Original) The method of claim 1, wherein said APC is an artificially generated APC.
6. (Previously Presented) The method of claim 1, wherein said RNA comprises poly A⁺ RNA.
7. (Previously Presented) The method of claim 1, wherein said RNA comprises cytoplasmic RNA.

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8. (Original) The method of claim 1, wherein the RNA is introduced into the APC by contacting the APC with the RNA in the presence of a cationic lipid.

9. (Previously Presented) The method of claim 1, wherein said RNA is provided as a fractionated tumor extract that is fractionated with respect to a non-RNA component of the tumor extract.

10. (Original) The method of claim 1, further comprising introducing into the APC RNA encoding an immunomodulator.

11. (Original) The method of claim 10, wherein the immunomodulator is a cytokine.

12. (Original) The method of claim 10, wherein the immunomodulator is a costimulatory factor.

13. (Currently Amended) ~~The~~ An isolated RNA-loaded APC produced by the method of claim 1.

14. (Previously Presented) A method for treating a tumor in a patient, said method comprising

administering to the patient a therapeutically effective amount of the RNA-loaded APC of claim 13.

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15. (Previously Presented) The method of claim 14, wherein the RNA is obtained from said patient.

16. (Previously Presented) The method of claim 1, wherein the RNA is obtained from fixed tissue.

17. (Previously Presented) The method of claim 14, wherein the RNA is obtained from a donor patient.

18. (Original) A method for producing a cytotoxic T lymphocyte that is cytotoxic for a cell which presents a tumor antigen (CTL), said method comprising:

providing a T lymphocyte;

contacting said T lymphocyte *in vitro* with the RNA-loaded APC of claim 13; and

maintaining said T lymphocyte under conditions conducive to CTL proliferation, thereby producing a CTL that is cytotoxic for a cell which presents a tumor antigen.

19-24 (Cancelled).

25. (Previously Presented) The method of claim 1, wherein the RNA is obtained from a melanoma.

26. (Previously Presented) The method of claim 1, wherein the RNA is obtained from a bladder tumor.

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27. (Previously Presented) The method of claim 1, wherein the RNA is obtained from a tumor selected from the group consisting of a breast cancer tumor, a colon cancer tumor, a prostate cancer tumor, and an ovarian cancer tumor.

28. (Cancelled).

29. (Original) The method of claim 1, wherein said RNA is prepared by amplification and *in vitro* transcription.

30. (Previously Presented) The method of claim 1, wherein said RNA comprises nuclear RNA.

31. (Original) The method of claim 1 wherein said RNA comprises a minigene.

32. (Original) The method of claim 1, wherein said RNA is prepared by *in vitro* transcription.

33. (Previously Presented) A method for producing an RNA-loaded antigen presenting cell (APC) that presents on its surface a pathogen antigenic epitope encoded by the RNA, wherein the epitope induces T cell proliferation, said method comprising:
introducing into an antigen-presenting cell *in vitro* RNA of a pathogen consisting essentially of RNA encoding a pathogen antigen that induces T cell proliferation and an immune response to the pathogen, thereby producing an RNA-loaded APC that presents on its surface a

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pathogen antigenic epitope encoded by the RNA, wherein the epitope induces T cell proliferation.

34. (Original) The method of claim 33, wherein said APC is selected from the group consisting of dendritic cells, macrophages, and endothelial cells.

35. (Original) The method of claim 33, wherein said APC is an artificially generated APC.

36. (Previously Presented) The method of claim 33, wherein said RNA comprises poly A⁺ RNA.

37. (Previously Presented) The method of claim 33, wherein said RNA is obtained from a virus.

38. (Original) The method of claim 37, wherein said virus is selected from the group consisting of Hepatitis viruses, human immunodeficiency viruses, influenza viruses, poliomyelitis viruses, measles viruses, herpes viruses, mumps viruses, and rubella viruses.

39. (Previously Presented) The method of claim 33, wherein said RNA is obtained from a bacterium.

40. (Original) The method of claim 39, wherein said bacterium is selected from the group consisting of *Salmonella*, *Shigella*, and *Enterobacter*.

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41. (Previously Presented) A method for producing a cytotoxic T lymphocyte (CTL) that is cytotoxic for a cell which presents a pathogen antigen, said method comprising:
providing a T lymphocyte;
contacting said T lymphocyte *in vitro* with the RNA-loaded APC of claim 33; and
maintaining said T lymphocyte under conditions conducive to CTL proliferation, thereby producing a CTL that is cytotoxic for a cell which presents a pathogen antigen.

42 and 43 (Cancelled).

44. (Previously Presented) The method of claim 18, wherein the RNA comprises at least 80% of polyA+ RNA naturally present in a tumor cell.

45. (Original) The method of claim 44, further comprising detecting sensitization of the contacted T lymphocyte as an indication of the induction of a CTL response.

46. (Original) The method of claim 45, wherein sensitization is detected in a cytotoxicity assay that comprises detecting killing of an RNA-loaded cell that presents on its surface a tumor or pathogen antigenic epitope encoded by RNA.

47. (Original) The method of claim 45, wherein sensitization of the contacted T lymphocyte is detected as an increase in cytokine secretion by the T lymphocyte.

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48. (Previously Presented) The method of claim 1, wherein said RNA comprises a sequence that encodes a polypeptide which controls intracellular trafficking of a polypeptide to which it is attached.

49. (Previously Presented) The method of claim 48, wherein said polypeptide that controls intracellular trafficking is KDEL (SEQ ID NO: 1); KFERQ (SEQ ID NO: 2); QREK (SEQ ID NO: 3); MAISGVFVLGFFILAVLMSAQESWA (SEQ ID NO: 4); a pentapeptide comprising Q flanked on one side by four residues selected from the group consisting of K, R, D, E, F, I, V, and L; or a signal peptide.

50. (Original) The method of claim 33, wherein said RNA comprises a sequence that encodes a trafficking sequence.

51. (Previously Presented) A method for detecting an increase in tumor-specific or pathogen-specific CTL in a patient, the method comprising:

- i) contacting a first sample of T lymphocyte from the patient *in vitro* with RNA-loaded APCs that present a cell-surface tumor or pathogen antigenic epitope encoded by the RNA, thereby producing a first expanded sample of T lymphocytes;
- ii) administering to the patient the RNA-loaded APCs that present a cell-surface tumor or pathogen antigenic epitope encoded by RNA;
- iii) subsequent to the administering step, contacting a second sample of T lymphocytes from the patient *in vitro* with RNA-loaded APCs that present a cell-surface tumor or pathogen antigenic epitope encoded by the RNA, thereby producing a second expanded

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sample of T lymphocytes;

iv) comparing sensitization of the first expanded sample of T lymphocytes with sensitization of the second expanded sample of T lymphocytes, wherein an increased level of sensitization in the second sample, as compared with the first sample, is an indicator of an increase in tumor-specific or pathogen-specific CTL.

52. (Original) The method of claim 51, wherein sensitization is measured in a cytotoxicity assay.

53. (Cancel).

54. (Previously Presented) A method for treating a tumor in a patient, said method comprising:

i) producing a cytotoxic T lymphocyte that is cytotoxic for a cell that presents a tumor antigen, said cytotoxic T lymphocyte being produced by a method comprising the steps of:

- a) providing a T lymphocyte;
- b) contacting said T lymphocyte *in vitro* with the RNA-loaded antigen presenting cell of claim 13; and
- c) maintaining said T lymphocyte under conditions conducive to cytotoxic T lymphocyte proliferation, thereby producing said cytotoxic T lymphocyte that is cytotoxic for said cell that presents said tumor antigen, and

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ii) administering to said patient a therapeutically effective amount of said cytotoxic T lymphocyte.

55. (Previously Presented) The method of claim 54, wherein the T lymphocyte is obtained from said patient.

56. (Previously Presented) The method of claim 54, wherein the T lymphocyte is obtained from a donor patient.

57. (Previously Presented) The method of claim 54, wherein the RNA is obtained from a tumor of said patient.

58. (Previously Presented) The method of claim 54, wherein the RNA is obtained from a donor patient.

59. (Previously Presented) A method for treating a pathogen infection in a patient, said method comprising:

i) producing a cytotoxic T lymphocyte that is cytotoxic for a cell that presents an antigen of said pathogen, said cytotoxic T lymphocyte being produced by a method comprising the steps of

a) providing a T lymphocyte;
b) contacting said T lymphocyte *in vitro* with the RNA-loaded antigen presenting cell of claim 33; and

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c) maintaining said T lymphocyte under conditions conducive to cytotoxic T lymphocyte proliferation, thereby producing said cytotoxic T lymphocyte that is cytotoxic for a cell that presents said antigen of said pathogen, and

ii) administering to said patient a therapeutically effective amount of said cytotoxic T lymphocyte.